

Appl. No. 10/708,456
Amendment dated Nov. 28, 2005
Reply to Office Action dated 09/28/2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) In a latch assembly formed of a bolt housing, a longitudinally elongated latch bar partially retained within a passageway of the bolt housing and longitudinally extendable therefrom, and a keeper having a reception passage for receiving an extending free end of the latch bar; wherein the free end of the latch bar is extendable from the bolt housing into the keeper, thereby establishing a latching relationship with the keeper, the improvement comprising:

the free end of said latch bar is configured with a cavity on a lateral face thereof, and the latch bar is forked from the free end of the latch bar to a junction with said cavity, thereby defining a longitudinal slot extending from the free end of the latch bar and leading into the bolt cavity;

the cavity is of a dimension wider than the width of said slot at its junction with the cavity;

said keeper ~~carries~~ comprises a cross-latch in a transversely moveable relationship with respect to said reception passage, between positions of greater and lesser intersection with the reception passage;

resilient means biases movement of said cross-latch toward a position of greater intersection with the reception passage;

an operator is connected to the cross-latch for selectively retracting the cross-latch against the force of said resilient means to a position of lesser intersection with the reception passage;

the latch bar comprises a keeper end stop, and said cross-latch is suitably positioned with respect to the reception passage to be engaged with said keeper end stop for stopping entry of said latch bar within the reception passage at a location where the cavity is positioned to receive the cross-latch a keeper end

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~~stop, operating between the keeper and the latch bar, is suitably positioned to limit entry of the latch bar into the reception passage to a position where said cavity is aligned to receive said cross-latch, when the cross-latch is in said position of lesser intersection with the reception passage, whereby, when the cross-latch is in said position of lesser intersection with the reception passage, the latch bar is able to enter the reception passage to a suitable position to receive the operator into the cavity;~~

wherein said cavity and cross-latch are suitably arranged such that the cross-latch and cavity are mutually engaged when the cross-latch is in said position of greater intersection with the reception passage and ~~the free end of the latch bar has been~~ is sufficiently inserted into positioned in the reception passage to receive the cross-latch, thereby locking the latch bar to the keeper; and

the cross-latch and cavity are mutually disengaged when the cross-latch is in said position of lesser intersection with the reception passage, allowing the latch bar to be inserted into or removed from the reception passage.

2. (canceled)

3. (canceled)

4. (previously presented) In the latch assembly of claim ~~3~~ 1, the further improvement comprising:

said latch bar is configured as a plate of rectangular transverse profile; and

said reception passage is configured with a matching rectangular profile for receiving the latch bar, such that the latch bar is substantially non-rotatable with respect to the reception passage and relative movement between the latch bar and the reception passage is substantially along a single longitudinal axis;

whereby, moving the latch bar along a single longitudinal axis establishes alignment between the cavity with the cross-latch.

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5. (previously presented) In the latch assembly of claim 4, the further improvement comprising:

said latch bar carries a longitudinal rib of predetermined height on a major face thereof;

a matching channel in said keeper extends parallel to said reception passage and receives said rib;

said keeper end stop further comprises a keeper end of the rib that terminates at an edge of said cavity, longitudinally opposite from said slot; and

in said position of lesser intersection with the reception passage, said cross-latch is interposed in said keeper channel such that said keeper end of the rib strikes a side of the cross-latch longitudinally opposite from said slot when the cross-latch and cavity are aligned for the cross-latch to enter the cavity.

6. (original) In the latch assembly of claim 4, the further improvement comprising:

said bolt housing passageway is configured with a rectangular profile suitable to carry said latch bar in slidable relationship;

the latch bar carries a longitudinal rib of predetermined height on a major face thereof;

a matching channel in said bolt housing extends parallel to the bolt housing passageway and receives said rib;

said bolt housing channel includes a bolt housing channel base wall facing the rib and spaced from the bolt housing passageway by a greater dimension than said predetermined height of the rib;

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whereby the latch bar is guided in said bolt housing on a major face in contact with the bolt housing passageway, suspending the rib at a gap from said bolt housing channel base.

7. (original) In the latch assembly of claim 6, the further improvement comprising:

said rib carries a first stop extending from the rib toward said bolt housing channel base; and

said bolt housing channel carries a second stop in an interfering position with respect to said first stop;

whereby the first and second stops prevent said latch bar from exiting said bolt housing in at least a first longitudinal direction of movement.

8. (canceled)

9. (canceled)

10. (canceled)

11. (new) In a latch assembly formed of a bolt housing, a longitudinally elongated latch bar partially retained within a passageway of the bolt housing and longitudinally extendable therefrom, and a keeper having a reception passage for receiving an extending free end of the latch bar; wherein the free end of the latch bar is extendable from the bolt housing into the keeper, thereby establishing a latching relationship with the keeper, the improvement comprising:

said latch bar is configured as a plate of rectangular transverse profile, the free end of said latch bar is configured with a cavity on a lateral face thereof, and the latch bar carries a longitudinal rib of predetermined height on a major face thereof;

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said bolt housing passageway is configured with a rectangular profile suitable to carry the latch bar in slidable relationship;

said bolt housing defines a channel matching said longitudinal rib of the latch bar, extending parallel to the bolt housing passageway, and receiving the longitudinal rib;

said bolt housing channel includes a bolt housing channel base wall facing the rib and spaced from the bolt housing passageway by a greater dimension than said predetermined height of the rib;

the rib carries a first stop extending from the rib toward said bolt housing channel base;

said bolt housing channel carries a second stop in an interfering position with respect to said first stop;

said keeper carries a cross-latch in a transversely moveable relationship with respect to said reception passage, between positions of greater and lesser intersection with the reception passage, wherein said reception passage is configured with a matching rectangular profile for receiving the latch bar, such that the latch bar is substantially non-rotatable with respect to the reception passage and relative movement between the latch bar and the reception passage is substantially along a single longitudinal axis;

resilient means biases movement of said cross-latch toward a position of greater intersection with the reception passage;

an operator is connected to the cross-latch for selectively retracting the cross-latch against the force of said resilient means to a position of lesser intersection with the reception passage;

wherein said cavity and cross-latch are suitably arranged such that the cross-latch and cavity are mutually engaged when the cross-latch is in said position of greater intersection with the reception passage and the free end of the latch bar

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has been sufficiently inserted into the reception passage, thereby locking the latch bar to the keeper;

the cross-latch and cavity are mutually disengaged when the cross-latch is in said position of lesser intersection with the reception passage, allowing the latch bar to be inserted into or removed from the reception passage; and

whereby, moving the latch bar along a single longitudinal axis establishes alignment between the cavity with the cross-latch, and the latch bar is guided in said bolt housing on a major face in contact with the bolt housing passageway, suspending the rib at a gap from said bolt housing channel base; and the first and second stops prevent said latch bar from exiting said bolt housing in at least a first longitudinal direction of movement.